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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G08B 13/14, 13/24	A3	(11) International Publication Number: WO 99/36798 (43) International Publication Date: 22 July 1999 (22.07.99)
(21) International Application Number: PCT/US99/00814		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 13 January 1999 (13.01.99)		
(30) Priority Data: 09/006,160 13 January 1998 (13.01.98) US		
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		Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>
		(88) Date of publication of the international search report: 7 October 1999 (07.10.99)

(54) Title: RF IDENTIFICATION PROCESS AND APPARATUS

(57) Abstract

An RF identification system, including an identification tag having a unique RF signature, a source for generating RF energy, and a detector for reading the signature when the identification tag is illuminated the RF energy generated by the source. The identification tag includes a base formed from an electrically non-conductive material and metal particles distributed randomly in the base. Detected signatures may be stored for later comparison against detected signatures for identification purposes. Biometric data may be read and associated with corresponding signatures to identify and link objects with persons.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/00814

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G08B 13/14, 13/24

US CL : 340/572.1, 551

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 340/572.1, 551, 825.54, 825.3; 235/384, 385, 375

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

APS

search terms: RF, infrared, electromagnetic, identification tag, metal particles, and biometric

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,689,239 A (TURNER et al) 18 November 1997, columns 4, 7 and 9.	1-3, 7-8, 13-15, 20-21 -----
---		4-6, 9-12, 16-19, 22-23
Y	US 4,857,891 A (HELTEMES) 15 August 1989, figure 1.	4-5, 22-23
Y	US 4,647,917 A (ANDERSON, III et al) 3 March 1987, col. 1-2.	9, 16
Y	US 5,661,457 A (GHAFFARI et al) 26 August 1997, col. 5-8.	10-12, 17-19
A	US 5,317,309 A (VERCELLOTTI et al) 31 May 1994, col. 2.	1-23

Further documents are listed in the continuation of Box C. See patent family annex.

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Date of the actual completion of the international search

13 JULY 1999

Date of mailing of the international search report

17 AUG 1999

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/00814

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,650,768 A (ESWARAN) 22 July 1997, col. 2-3.	1-23